

ABSTRACT

A piezoelectric transformer, which operates in a half wavelength mode, includes an input part having input electrodes laminated in a thickness direction on a central part in a longitudinal direction of a piezoelectric element with rectangular shape, in which the input part is polarized in the thickness direction between the input electrodes, a pair of output parts provided along the longitudinal direction so as to sandwich the input part, in which the output parts are polarized in the same direction along the longitudinal direction, and an output electrode provided at an end part of each of the output parts, wherein L_1 , L_2 and L_3 satisfy a relationship of $0.1 \leq (4L_2 - L_3)/4L_1 \leq 0.5$, where L_1 is a length of the piezoelectric element in the longitudinal direction, L_2 is a length of the input part in the longitudinal direction, and L_3 is a length of either one of the output electrodes in the longitudinal direction.